#4

MAY 1 8 2001 BY
Attorned Docket No. 1340P082

<u>PATENT</u>

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

(FOR VOYAN TECHNOLOGY PATENT APPLICATIONS)

As a below named inventor, I hereby declare that:

the specification of which

My residence, post office address and citizenship are as stated below, next to my name.

I believe I am the original, first, and sole inventor (if only one name is listed below) or an original, first, and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

METHOD AND APPARATUS FOR THE PREDICTION AND OPTIMIZATION IN IMPAIRED COMMUNICATION SYSTEMS

as
r <u>09/710,487</u>
Number

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment referred to above.

I do not know and do not believe that the claimed invention was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, and that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months (for a utility patent application) or six months (for a design patent application) prior to this application.

I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)				Priority <u>Claimed</u>	
(Number)	(Country)	(Day/Month/Year Filed)	Yes	No	
(Number)	(Country)	(Day/Month/Year Filed)	Yes	No	

Voyan Technology 1340P082 Rev. 2.0 (4/01)

(Number)	(Country)	(Day/Month/Year Fil	ed) Yes No	
I hereby claim the benefit un States provisional application		States Code, Section 119(∍) of any United	
60/164,986 (Application Number)	November 1 Filing Da			
60/181,125 (Application Number)	February 8, Filing Da			
60/183,675 (Application Number)	February 18 Filing Da			
60/165,399 (Application Number)	November Filing Da			
I hereby claim the benefit un application(s), or 365(c) of at America, listed below and, in is not disclosed in the prior U provided by the first paragral duty to disclose all information Code of Federal Regulations the prior application and the	ny PCT Internation nsofar as the subject United States or PC ph of Title 35, United on known to me to les, Section 1.56 whice	al application designating the matter of each of the claic matter of each of the claic matternational application ed States Code, Section 11 be material to patentability the became available between	ne United states of ms of this application in the manner 2, I acknowledge the as defined in Title 37 en the filing date of	n e
(U.S. Parent Application or) P. PCT Parent No.)	arent Filing Date	(Status patented, pending, abandoned)	Parent Patent No. (if applicable)	-
(U.S. Parent Application or) F	Parent Filing Date	(Status patented, pending, abandoned)	Parent Patent No. (if applicable)	-
I hereby appoint the persons listed on Appendix A hereto (which is incorporated by reference and a part of this document) as my respective patent attorneys and patent agents, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.				
Send correspondence to Archana B. Vittal , BLAKELY, SOKOLOFF, TAYLOR & (Name of Attorney or Agent) ZAFMAN LLP, 12400 Wilshire Boulevard, 7th Floor, Los Angeles, California 90025 and direct telephone calls to Archana B. Vittal , (408) 720-8300. (Name of Attorney or Agent)				
I hereby declare that all sta all statements made on inf these statements were ma- like so made are punishab Title 18 of the United State the validity of the applicati	formation and bel de with the knowl le by fine or impr es Code and that s	ief are believed to be true ledge that willful false sta isonment, or both, under such willful false stateme	e; and further that itements and the Section 1001 of	

а

-2-

Full Name of Sole/Fig	rst Inventor <u>John Josef Hench</u>		
Inventor's Signature	gh f Nel	Date	pril 30, 2001
	San Jose, California (City, State)	Citizenship	USA (Country)
Post Office Address_	15297 Charmeran Avenue San Jose, California 95124		
Full Name of Second	/Joint Inventor Thorkell Gudmunds	son	
Inventor's Signature	forfell (SuB	Date <u></u>	pil 30, 2001
Residence	San Jose, California (City, State)	_Citizenship	lcelandic (Country)
Post Office Address_	5301 Rafton Drive San Jose, California 95124		
Full Name of Third/Jo	pint Inventor <u>Ioahnis Kahellakopouk</u>	os	
Inventor's Signature	funder to	Date <u></u>	Nay 4,2001
Residence	Cupertino, California (City, State)	Citizenship	Greece (Country)
Post Office Address_	10152 Firewood Drive Cuperting, California 95014		
Full Name of Fourth/	Joint Inventor Sunil C. Shah		
Inventor's Signature	Dund C Hd	Date <u>_</u>	5/1/07
Residence	Los Altos, California (City, State)	Citizenship	USA (Country)
Post Office Address_	637 Linden Avenue Los Altos, California 94022		
Full Name of Fifth/Jo	int Inventor_Gurcan Aral	· · · · · · · · · · · · · · · · · · ·	
Inventor's Signature	furcantral	Date	5/1/2001
Residence	Cupertino, California (City, State)	Citizenship	USA (Country)
Post Office Address_	1040 November Drive		

Full Name of Sixth/Joi	int inventor <u>yaolong i ar</u>	1	
Inventor's Signature _	Hawloney !	Jan Dai	te May 1, 200/
_			-0
Residence	Fremont, California	Citizenship_	P.R. China
	(City, State)		(Country)
Post Office Address	41777 Grimmer Blvd., #	‡J2	
	Fremont, California 945		

Voyan Technology 1340P082 Rev. 2.0 (4/01)

APPENDIX A

William E. Alford, Reg. No. 37,764; Farzad E. Amini, Reg. No. 42,261; William Thomas Babbitt, Reg. No. 39,591; Carol F. Barry, Reg. No. 41,600; Jordan Michael Becker, Reg. No. 39,602; Lisa N. Benado, Reg. No. 39,995; Bradley J. Bereznak, Reg. No. 33,474; Michael A. Bernadicou, Reg. No. 35,934; Roger W. Blakely, Jr., Reg. No. 25,831; R. Alan Burnett, Reg. No. 46,149; Gregory D. Caldwell, Reg. No. 39,926; Thomas M. Coester, Reg. No. 39,637; Donna Jo Coningsby, Reg. No. 41,684; Florin Corie, Reg. No. 46,244; Mimi Diemmy Dao, Reg. No. 45,628; Dennis M. deGuzman, Reg. No. 41,702; Stephen M. De Klerk, Reg. No. 46,503; Michael Anthony DeSanctis, Reg. No. 39,957; Daniel M. De Vos, Reg. No. 37,813; Justin M. Dillon, Reg. No. 42,486; Sanjeet Dutta, Reg. No. 46,145; Matthew C. Fagan, Reg. No. 37,542; Tarek N. Fahmi, Reg. No. 41,402; Thomas S. Ferrill, Reg. No. 42,532; George Fountain, Reg. No. 37,374; James Y. Go, Reg. No. 40,621; James A. Henry, Reg. No. 41,064; Libby N. Ho, Reg. No. 46,774; Willmore F. Holbrow III, Reg. No. 41,845; Sheryl Sue Holloway, Reg. No. 37,850; George W Hoover II, Reg. No. 32,992; Eric S. Hyman, Reg. No. 30,139; William W. Kidd, Reg. No. 31,772; Sang Hui Kim, Reg. No. 40,450; Walter T. Kim, Reg. No. 42,731; Eric T. King, Reg. No. 44,188; George Brian Leavell, Reg. No. 45,436; Kurt P. Leyendecker, Reg. No. 42,799; Gordon R. Lindeen III, Reg. No. 33,192; Jan Carol Little, Reg. No. 41,181; Robert G. Litts, Reg. No. 46,876; Julio Loza, Reg. No. P47,758; Joseph Lutz, Reg. No. 43,765; Michael J. Mallie, Reg. No. 36,591; Andre L. Marais, Reg. No. P048,095; Paul A. Mendonsa, Reg. No. 42,879; Clive D. Menezes, Reg. No. 45,493; Chun M. Ng, Reg. No. 36,878; Thien T. Nguyen, Reg. No. 43,835; Thinh V. Nguyen, Reg. No. 42,034; Robert B. O'Rourke, Reg. No. 46,972; Daniel E. Ovanezian, Reg. No. 41,236; Kenneth B. Paley, Reg. No. 38,989; Gregg A. Peacock, Reg. No. 45,001; Marina Portnova, Reg. No. 45,750; William F. Ryann, Reg. 44,313; James H. Salter, Reg. No. 35,668; William W. Schaal, Reg. No. 39,018; James C. Scheller, Reg. No. 31,195; Jeffrey S. Schubert, Reg. No. 43,098; George Simion, Reg. No. P47,089; Maria McCormack Sobrino, Reg. No. 31,639; Stanley W. Sokoloff, Reg. No. 25,128; Judith A. Szepesi, Reg. No. 39,393; Edwin H. Taylor, Reg. No. 25,129; John F. Travis, Reg. No. 43,203; Joseph A. Twarowski, Reg. No. 42,191; Mark C. Van Ness, Reg. No. 39,865; Tom Van Zandt, Reg. No. 43,219; Brent E. Vecchia, Reg. No. P48,011; Lester J. Vincent, Reg. No. 31,460; Archana B. Vittal, Reg. No. 45,182; Glenn E. Von Tersch, Reg. No. 41,364; John Patrick Ward, Reg. No. 40,216; Mark L. Watson, Reg. No. 46,322; Thomas C. Webster, Reg. No. 46,154; and Norman Zafman, Reg. No. 26,250; my patent attorneys, and Firasat Ali, Reg. No. 45,715; and Raul Martinez, Reg. No. 46,904, my patent agents, of BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP, with offices located at 12400 Wilshire Boulevard, 7th Floor, Los Angeles, California 90025, telephone (310) 207-3800, and James R. Thein, Reg. No. 31,710, my patent attorney with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

I also hereby appoint Darren J. Milliken, Reg. No. 42,004 as my attorney of Voyan Technology located at 3255-7 Scott Blvd., Santa Clara, CA 95054, telephone (408)-450-4234 with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.



Title 37, Code of Federal Regulations, Section 1.56 Duty to Disclose Information Material to Patentability

- (a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclosure information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclosure all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:
- (1) Prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made or record in the application, and
- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
 - (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
 - (1) Each inventor named in the application;
 - (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.